

To: T10 Technical Committee

From: Kevin Butt, IBM Document: T10/04-231r0

Subject: Automation/Drive Interface - Transport Protocol (ADT) - Resolution of LB Comment

IBM48

IBM 48: In paragraph 4.3.3.8, the delay indicated in item 2 of the numbered list is incorrect, Move the delay from item 2 of the numbered list to a delay on entry into P2:Logged-In state after allowing receive but before allowing send. This would add an additional state to the transmitter state machine that is turn on receiver then delay time then transition to T0:Active.

Proposal

4.3.3.8 N5:Login Complete state

A port enters this state when both ports have it has sent and received a Port Login IU with the ACCEPT bit set to one. Upon entry into this state, the port shall:

- 1) Set its operating parameters to the negotiated values,
- 2) Delay a period of 100 milliseconds, and
- 32) Send a Login Process Complete message to the port state machine.

While in this state, a port shall not transmit.

4.3.4 Transmitter state machine

4.3.4.1 Transmitter state machine overview

The transmitter state machine manages the ports permission to transmit. It is a sub-state machine of the port state P2:Logged-In. The transmitter state machine consists of the following states:

- a) T0:Active; and
- b) T1:Paused.
- a) T0:Entering
- b) T1:Active, and
- c) T2:Paused.

This state machine becomes active when the port enters P2:Logged-In state.

Figure 6 shows the transmitter state machine. The following subclauses describe the transitions and the actions taken in each state.

Figure 6 — Transmitter State Diagram

<< Figure 6 graphic >>

4.3.4.x T0:Entering state

4.3.4.x.1 State description

A port in T0:Entering state may receive all types of information units.

While in this state, a port shall not transmit.

4.3.4.x.2 Transition T0:Entering to T1:Active

A port shall transition to T1:Active state when it receives a valid information unit or after a period of 100 milliseconds.

4.3.4.2 T₁₀: Active state

4.3.4.2.1 State description

A port in T10:Active state may transmit and receive all types of information units.

4.3.4.2.2 Transition T₁:Active to T₂:Paused

A port shall transition to T1:Paused state after it receives a Pause IU and sends the corresponding ACK IU.

4.3.4.3 T₂+:Paused state

4.3.4.3.1 State description

A port in T2+: Paused state shall not initiate an exchange.

4.3.4.3.2 Transition T₂+:Paused to T₁0:Active

A port shall transition to T10:Active state after receiving any frame other than a Port Login IU, Port Logout IU, Pause IU, or acknowledgment IU.